The relationships between market orientation and alternative strategic orientations

A meta-analysis

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Abstract

Purpose – One of the strongest convictions in marketing is that market orientation contributes to firms' performance substantially more than alternative strategic orientations such as innovation and entrepreneurial orientations. Still, some studies show that alternative orientations can also substantially affect the performance of firms, and furthermore, that firms that combine market orientation with alternative orientations are likely to perform even better than firms adopting only market orientation. Also, the nature of the relationship between market orientation and other strategic orientations is not clear. The purpose of this paper is to deal with these discrepancies in the marketing literature. It highlights the importance of the study of the relationship between market orientation and alternative strategic orientations, examines the effect of market orientation on different orientations, and identifies the orientations that are more likely to be combined with market orientation.

Design/methodology/approach – The study employs a meta-analysis procedure to synthesize empirical results on the relationship between market orientation and innovation, learning, entrepreneurial, and employee orientations.

Findings – Findings suggest that market orientation is strongly correlated with learning, entrepreneurial, and employee orientations, and that it has a moderate positive relationship with innovation orientation.

Research limitations/implications – Research on market orientation should shift its focus, moving from the study of the direct effect of market orientation on business performance to the study of the various combinations of strategic orientations that firms can pursue in different situations, studying how the more successful market-oriented firms balance between market orientation and other strategic orientations.

Originality/value – This is the first meta-analysis to examine the relationships between market orientation and alternative strategic orientations.

Keywords Market orientation, Strategic marketing, Business performance, Statistical analysis

Paper type Research paper

Introduction

The market orientation (MO) construct is at the very heart of modern marketing and a frequently studied research subject. It was presented in the 1990s as the actions that

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firms undertake to implement a customer orientation, and include a set of behaviors and the organizational culture that supports them (Deshpandé *et al.*, 1993; Kohli and Jaworski, 1990; Narver and Slater, 1990).

One of the strongest convictions in marketing is that MO contributes to firms' performance substantially more than alternative strategic orientations such as innovation, learning, and entrepreneurial orientations. Indeed, the vast majority of MO studies have examined the effect of MO on business performance, demonstrating its superiority as a strategic orientation (Hult and Ketchen, 2001; Kirca *et al.*, 2005; Zhou *et al.*, 2005). Still, some studies show that MO is not the only viable strategic orientation and that other orientations can also substantially influence the competitive advantage and performance of firms (e.g. Fritz, 1996; Hult and Ketchen, 2001; Noble *et al.*, 2002). Furthermore, recent research shows that firms may find it more useful to combine MO with other strategic orientations. Specifically, firms combining MO with other orientations have been found to perform better than firms adopting only MO (e.g. Atuahene-Gima and Ko, 2001; Baker and Sinkula, 1999a; Bhuian *et al.*, 2005).

Still, a review of the MO literature suggests that only few studies did examine the relationships between MO and other strategic orientations. This is a serious gap in the MO literature, especially in light of the findings that MO is not the only viable strategic orientation and that firms can improve performance by balancing between MO and other orientations. Based on the above we believe that research on MO should shift its focus, moving from the study of the direct effect of MO on business performance to the study of the various combinations of strategic orientations that firms can pursue in different situations. Such research efforts should involve studying how the more successful market-oriented firms balance between MO and other strategic orientations, identifying the effect of MO on different strategic orientations, the orientations that are more likely to be combined with MO, and the conditions under which different firms are likely to adopt different orientation combinations.

The marketing and strategic management literatures discuss a variety of strategic orientations that can positively affect firms' competitive advantage and performance beyond MO. The central ones are innovation, learning, entrepreneurial, and employee orientations (Baker and Sinkula, 1999a; Hult and Ketchen, 2001; Liu *et al.*, 2002). Previous independent studies offer equivocal empirical results as to the relationships between MO and these strategic orientations (Bhuian *et al.*, 2005; Calantone *et al.*, 2003; Langerak, 2003; Narver and Slater, 1990; Pelham, 1999; Siguaw and Honeycutt, 1995). For example, it is still not clear whether MO impedes or enhances innovation (Im and Workman, 2004; Lukas and Ferrell, 2000). The existence of such equivocal results reinforces the need to advance research on the nature of these relationships.

To study the relationships between MO and alternative strategic orientations we employ a meta-analytic procedure. Meta-analysis is a statistical technique by which information from independent studies of a theorized relationship is assimilated (Campbell-Hunt, 2000; Field, 2001). This procedure enables to calculate the mean effect size of MO on all alternative strategic orientations, and the boundaries of these effect sizes (i.e. confidence intervals) across a large number of studies that investigated these relationships, while correcting for several statistical artifacts (e.g. sampling error, measurement error) (Hunter and Schmidt, 1990; King *et al.*, 2004). Specifically, we employ the meta-analytic procedure suggested by Hunter and Schmidt (1990), obtaining 135 effects from 77 independent samples reported in 70 studies[1].

This meta-analysis follows other recent meta-analytic efforts in the MO research area. Previous meta-analyses (i.e. Cano *et al.*, 2004; Kirca *et al.*, 2005; Shoham *et al.*, 2005) have studied the relationships between MO and various forms of organizational outcomes, mostly business performance. Kirca *et al.* (2005) provide the most extensive meta-analysis based on 418 effects from 114 studies. They examine the relationships between MO and its antecedents (e.g. top management factors, interdepartmental dynamics) as well as with its consequences (e.g. customer consequences, organizational performance). They also study various moderators to the relationship between MO and organizational performance (e.g. type of performance measure used, type of industry studied). Both Cano *et al.* (2004), which conduct a meta-analysis based on 58 effects reported in 53 studies, and Shoham *et al.* (2005), which conduct a meta-analysis based on 35 effects reported in 29 studies, focus on studying the relationship between MO and organizational performance while examining various moderators to the relationship (e.g. geographical location of study, type of performance measure used).

This study contributes to MO research and goes beyond previous meta-analyses in several substantial ways. While previous meta-analyses were interested in studying the general effect of MO on business performance, this study is more specific, concentrating on studying a subset of this framework: the relationships between MO and alternative strategic orientations. Still, the investigation of these relationships is highly important. The reason is their strong effect on the effectiveness of a firm's market-oriented behaviors, as recent research suggests (e.g. Atuahene-Gima and Ko, 2001; Baker and Sinkula, 1999a). This study is the first to collect cumulative data on the nature of the relationship between MO and other central strategic orientations: innovation, learning, entrepreneurial, and employee orientations. Overall, we find that market orientation is strongly correlated with learning, entrepreneurial, and employee orientations, and that it has a moderate positive relationship with innovation orientation. Also, we believe that this study should help resolving some of the discrepancies in the MO literature as to the nature of the relationship between MO and alternative strategic orientations.

Market orientation and business performance

MO is viewed as the organizational elements – culture and behaviors – that implement customer orientation (Day, 1994; Kohli and Jaworski, 1990; Narver and Slater, 1990). MO research is largely based on the conceptual framework suggested by Narver and Slater (1990) and by Kohli and Jaworski (1990). Narver and Slater (1990, p. 21) define MO as the "organizational culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and thus, continues superior performance for the business". Accordingly, a firm's market-oriented behaviors include three components: customer orientation, competitor orientation, and inter-functional coordination, and these components must be supported by a relevant culture. Kohli and Jaworski (1990, p. 6) emphasize the behavior aspects of MO, conceptualizing it as the "organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it".

Researchers agree on the profile of the market-oriented firm. First, this firm establishes an organizational culture that supports customer orientation. Also, it is characterized by typical behaviors: information gathering about current and future customer needs, organization-wide inter-functional coordination of marketing activities, and responsiveness to targeted customers. Finally, most authors agree that implementing MO leads to better organizational performance (e.g. Deshpandé and Farley, 1998; Jaworski and Kohli, 1993; Slater and Narver, 1994). Indeed, most of the empirical work has focused on establishing the MO-business performance relationship in various environmental and organizational conditions (e.g. competitive intensity, firm's size) and three recent meta-analyses (i.e. Cano *et al.*, 2004; Kirca *et al.*, 2005; Shoham *et al.*, 2005) confirm the positive MO-business performance relationship.

Alternative strategic orientations and business performance

Strategic orientations have been discussed in both marketing and strategic management. Strategic orientations are the strategic directions implemented by a firm to create the proper behaviors for the continuous superior performance of the business (Gatignon and Xuereb, 1997). They often reflect the beliefs and mental models of the senior executives (Hitt *et al.*, 1997). Previous research has suggested various typologies of strategic orientations. Two well-known typologies are Miles and Snow's (1978) (e.g. prospectors vs defenders) and Porter's (1980) (e.g. a differentiation strategy vs a low-cost one). Others include, for example, an external orientation vs. an internal one, and an opportunity seeking orientation vs a problem avoiding one (Day, 1994; Noble *et al.*, 2002; Wright *et al.*, 1995).

In the context of MO a number of central strategic orientations that contribute to firms' competitive advantage and performance beyond MO were discussed. These include innovation, learning, entrepreneurial, and employee orientations.

Innovation orientation (often labeled technological or product orientation) is present when organizations implement new ideas, products or processes (Damanpour, 1991; Hult and Ketchen, 2001; Lukas and Ferrell, 2000). It is associated with investments in technological leadership and with high quality products (Fritz, 1996; Gatignon and Xuereb, 1997; Han *et al.*, 1998). Innovation positively affects firms' long-term success as it enhances organizational flexibility, willingness to change, and the introduction of new products while decreasing organizational inertia (Damanpour, 1991; Gatignon and Xuereb, 1997; Hult *et al.*, 2004).

Learning orientation has to do with the development of knowledge in the organization. It is an organizational characteristic that affects a firm's propensity to value learning that leads to a change in basic organizational norms and values, and is the result of a proactive organizational behavior (Baker and Sinkula, 1999a; Hult *et al.*, 2004). The adoption of a learning orientation is associated with better organizational performance as it leads firms to constantly question long-held assumptions about fundamental operating philosophies, examining firms' "mental model" and "dominant logic". This, in turn, enables firms to create knowledge and competencies, and better respond to their environment (Baker and Sinkula, 1999a; Liu *et al.*, 2002; Slater and Narver, 1995).

Entrepreneurial orientation reflects the firm's degree of risk taking, proactiveness and aggressiveness with respect to innovation (Atuahene-Gima and Ko, 2001; Becherer and Maurer, 1997; Bhuian *et al.*, 2005). Entrepreneurial values enhance organizational transformation and renewal, can help build new competencies, and create new businesses within the existing business. They allow firms to capitalize on emerging opportunities, and therefore are an important driver of new products and organizational growth (Bhuian *et al.*, 2005; Hult *et al.*, 2004; Luo *et al.*, 2005b; Slater and Narver, 1995).

Employee orientation relates to firms' internal focus on human resources, putting employees' well-being and satisfaction before other stakeholders (Fritz, 1996; Harris and Ogbonna, 2001; Piercy *et al.*, 2002). Employee-oriented firms are characterized by de-centralized decision-making processes, investments in employees' development, and delegation of responsibility. These are likely to increase organizational members' satisfaction, motivation, and organizational commitment (Fritz, 1996; Ruekert, 1992). Previous research has demonstrated the positive effect of employee orientation on performance, suggesting that satisfied, motivated and committed employees create satisfied and loyal customers, which, in turn, are likely to increase the firm's stream of revenues (Fritz, 1996; Harris and Ogbonna, 2001; Pfeffer and Veiga, 1999; Ruekert, 1992).

Market orientation and alternative strategic orientations

The positive effect of both MO and other alternative strategic orientations on business performance is no longer in doubt. Still, the vast majority of researchers in marketing argue that MO is the most important strategic orientation and that its contribution to firms' success outweighs all other orientations (Fritz, 1996; Hult and Ketchen, 2001; Narver and Slater, 1990). Nonetheless, a growing number of researchers suggest that an appropriate balance between MO and other strategic orientations is a primary factor in firms' performance and survival (Atuahene-Gima and Ko, 2001; Slater and Narver, 1995). For example, Atuahene-Gima and Ko (2001) find a synergetic effect of MO and entrepreneurial orientation, showing that they combine positively to affect product innovation activities and performance. Similarly, Baker and Sinkula (1999a) find a synergetic effect of MO and learning orientation, and Han *et al.* (1998) find that innovation mediates the relationship between MO and business performance.

Consistent with the above argument that the more successful market-oriented firms are those balancing between MO and other strategic orientations, we suggest that it is important to study the relationships between MO and these orientations, examining the effect of MO on different strategic orientations, and identifying the orientations that are more likely to be combined with MO. We study the relationships between MO and innovation, learning, entrepreneurial, and employee orientations. We next discuss the nature of these relationships in more detail and develop specific research hypotheses.

Market orientation and innovation orientation

For the past three decades there has been a continuous debate in the marketing and strategic management literatures as to the nature of the relationship between MO and innovation orientation. This debate is still unresolved (Im and Workman, 2004; Lukas and Ferrell, 2000). One stream of research preaches against "being too close to the customer", showing that market-oriented firms are less likely to innovate (e.g. Christensen, 1997; MacDonald, 1995). The reason is that market-oriented firms attempt to satisfy expressed needs of customers or imitate competitors and thus they are likely to detract from innovativeness (Connor, 1999; Lukas and Ferrell, 2000; Narver *et al.*, 2004). In contrast, other researchers suggest that market-driven behavior is positively related to innovation. Houston (1986) suggests that customer-focused firms are in a good position to anticipate future needs of customers, which, in turn, can lead to innovative consequences. Further, a more recent stream of research has found a positive relationship between MO and innovation consequences such as innovativeness and new product performance (e.g. Atuahene-Gima, 1995; Hult *et al.*, 2004; Kirca et al., 2005). These studies suggest that MO is likely to enhance innovation because it involves doing something new or different in response to market conditions. In fact, an innovation-driven firm can use its technological capabilities to develop a new solution to meet new needs of the customers (Gatignon and Xuereb, 1997; Im and Workman, 2004; Jaworski and Kohli, 1993). Indeed, recent MO research suggests that market-oriented firms often attempt to satisfy latent needs of customers, not only expressed ones, and monitor competitors not in order to imitate them but to better differentiae their products. These behaviors are forward-looking and aim to change the status quo, and, in turn, are likely to increase innovativeness (Deshpandé *et al.*, 1993; Han *et al.*, 1998; Narver *et al.*, 2004). Finally, the fact that market-oriented firms emphasize greater information use, substantial learning, and behavioral change is likely to enhance innovativeness (Atuahene-Gima, 1995, 1996). Based on the above we follow the recent views of the MO-innovation orientation link and hypothesize that:

H1. There is a positive relationship between market orientation and innovation orientation.

Market orientation and learning orientation

Research in marketing suggests that learning orientation is the engine behind MO (Baker and Sinkula, 1999a; Slater and Narver, 1995). Specifically, if organizational members have an enhanced learning orientation, they are likely to gather and disseminate information about the market, as well as constantly examine the quality of this information and of its dominant logic. For example, questioning the logic of current customers' needs and competitors' behavior. This, in turn, enhances MO and its quality (Baker and Sinkula, 1999a; Narver *et al.*, 2004). Also, learning orientation has to do with the development of knowledge in the organization and is often related to the generation of market information. Market information, in turn, enables firms to constantly improve and update organizational-wide learning values and skills (Hult *et al.*, 2004; Liu *et al.*, 2002; Slater and Narver, 1995).

In contrast, firms with lower learning capabilities might have an inflexible construction of MO, and their market-oriented efforts are likely to be associated with imitation rather than innovation as these firms are less likely to have a deep understanding of their customers' latent needs (Baker and Sinkula, 1999a; Slater and Narver, 1995). Based on the above we hypothesize that:

H2. There is a positive relationship between market orientation and learning orientation.

Market orientation and entrepreneurial orientation

MO provides an effective vehicle to achieve entrepreneurial activities. Specifically, both market-oriented and entrepreneurial firms strive to satisfy expressed and latent customer needs, pursue market expansions as they are identified, and capitalize on emerging opportunities. Also, marketing knowledge and information is often crucial for the entrepreneurial process, shaping the entrepreneurial behavior (Bhuian *et al.*, 2005; Liu *et al.*, 2002; Luo *et al.*, 2005a,b). MO is especially important for entrepreneurial firms and new ventures because at their early stages it enables them to learn on, and adapt to the environment, quickly reacting to opportunities and threats (Becherer and Maurer, 1997; Luo *et al.*, 2005b). Indeed, empirical studies have found that firms that scored high on MO often tended to be more entrepreneurial-oriented, and that firms that adopted both MO and entrepreneurial orientation achieved superior performance (Atuahene-Gima and Ko, 2001; Bhuian *et al.*, 2005; Luo *et al.*, 2005b; Matsuno *et al.*, 2002). Based on the above we hypothesize that:

H3. There is a positive relationship between market orientation and entrepreneurial orientation.

Market orientation and employee orientation

Most MO researchers suggest that both MO and employee orientation are likely to have a positive impact on various employee consequences such as employees' commitment, job satisfaction, motivation, and team spirit, and both are likely to minimize role conflict (Kirca *et al.*, 2005; Piercy *et al.*, 2002; Ruekert, 1992; Siguaw and Honeycutt, 1995). These studies suggest a positive association between MO and employee orientation and its consequences. Specifically, MO is expected to nurture a bonding between employees and the organization, promoting a feeling of belonging to one big organizational family dedicated to meeting and exceeding market needs and expectations (Jaworski and Kohli, 1993; Ruekert, 1992; Zhou *et al.*, 2004). The reason is that employees in market-oriented firms are likely to share information, participate in decision making, and cooperate and work together towards a common goal (Han *et al.*, 1998; Zhou *et al.*, 2004). Similar behaviors are also found in employee-oriented firms that emphasize employees' involvement in decision making and the delegation of responsibility (Fritz, 1996; Zhou *et al.*, 2004). These behaviors signal employees that they are trusted, often stimulating more initiatives and effort on their part (Pfeffer and Veiga, 1999). Overall, this is likely to increase job satisfaction, motivation, organizational commitment, and team spirit, while minimizing role conflict (Pfeffer and Veiga, 1999; Ruekert, 1992; Siguaw and Honeycutt, 1995). Still, some MO researchers suggest that the adoption of MO is negatively correlated with employees' well-being and satisfaction as it puts the customers' needs before organizational members' (Harris and Ogbonna, 2000; Piercy *et al.*, 2002). Indeed, recent research has found that employees in market-oriented firms report low levels of autonomy, motivation, and team spirit (Piercy *et al.*, 2002). In spite of the latter stream of research, and based on the findings of most empirical studies we hypothesize that:

H4. There is a positive relationship between market orientation and employee orientation.

Method

Meta-analysis

Meta-analysis is a statistical technique that aggregates results across independent studies to obtain an estimate of the relationship between two constructs in the population while correcting for various statistical artifacts (King *et al.*, 2004). Meta-analysis typically deals with two statistical artifacts: sampling error – the difference between an estimate derived from a small sample survey and the value in the population, and measurement error which relates to low reliabilities of the measures (Hunter and Schmidt, 1990).

Eligibility criteria

We conducted a meta-analysis which corrects for both sampling and measurement errors (Hunter and Schmidt, 1990). We thus included in the analysis studies that report a simple correlation between the constructs of interests (r – Pearson's correlation coefficient) (or equivalent r – transformed from t, F, or χ^2), the sample size, and reliabilities for each of the constructs (Bamberger *et al.*, 1999; King *et al.*, 2004).

Sample

We employed both computerized and manual searches to identify studies for potential inclusion in our analysis. We searched the databases ABI/Inform, Emerald, Kluwer, and JSTOR, the most central for the marketing discipline, also covering research areas such as management, organization, strategy, innovation, entrepreneurship, and policy, which may also be relevant for MO publications. We used the key terms "market orientation" "market driven" and "customer orientation" as these are used interchangeably in the literature (Day, 1994; Deshpandé and Farley, 1999). To identify additional relevant publications we asked the authors of the most comprehensive meta-analysis of the relationship between MO and business performance (Kirca *et al.*, 2005) to send us the list of studies included in their study. We then carefully studied all the publications identified, removing those that do not study the relationships between MO and alternative strategic orientations. We next studied the references in each to reveal other relevant studies. On completion of the search process in March 2006 we had obtained 135 effects from 77 independent samples reported in 70 studies.

As to the issue of outliers – independent studies with very large samples that may have contaminated the meta-analysis: we identified one such study – Zhou *et al.* (2004) that reported a sample size of 1,357. As recommended by Hunter and Schmidt (1990) we conducted all the analyses with and without this study, yielding similar results. This minimizes concerns as to the contaminating effect of outliers, and we therefore did not omit the study from our analyses.

Coding

Information on strategic orientations was coded from each study using the detailed and explicit descriptions of the samples and methods reported in each of the studies. Innovation orientation consisted of 49 effects that relate to new product performance ($n = 25$) and innovativeness ($n = 24$) (Kirca *et al.*, 2005). Learning orientation consisted of nine effects, entrepreneurial orientation 14, and employee orientation consisted of 37 effects that relate to its outcomes (Fritz, 1996; Kirca *et al.*, 2005): organizational commitment ($n = 18$), job satisfaction ($n = 6$), role conflict ($n = 6$), job motivation ($n = 4$), and team spirit ($n = 3$).

Meta-analytic procedure

The meta-analysis was conducted according to the guidelines provided by Hunter and Schmidt (1990). We first calculated the mean effect size while correcting for sampling error using the sample size of each study as weights. Thus, results from larger samples are given larger weights because they are considered to be more reliable. Following Hunter and Schmidt's (1990) recommendation we also corrected for measurement error that reduces measures' reliability. The procedure we followed involved dividing the mean effect sizes by the product of the square root of the respective reliabilities (MO – the independent variable, and alternative strategic orientations – the dependent ones). In the case of missing reliabilities we used the sample-size-weighted mean reliabilities from the remaining studies as reliability estimates (Bamberger *et al.*, 1999; Hunter and Schmidt, 1990). We then transformed the reliability-corrected correlations into Fisher's Z-coefficients, averaged these – weighing them by an estimate of the inverse of their variance to give greater weight to more precise estimates, then reconverting them to correlation coefficients (Hedges and Olkin, 1985).

We then calculated the observed variance and the sampling error variance across studies. We subtracted the latter from the former to obtain the population variance, which enabled us to calculate the boundaries of the mean effect size: we calculated 95 percent confidence intervals using Field's method of calculating the standard error of the population (Field, 2001). We used bivarite analysis to test the relationships between the constructs of interests. This is the most commonly used method of analysis reported in meta-analyses in the social sciences (Cortina, 2003; Hunter and Schmidt, 1990).

Results

Table I provides the meta-analytic results of the relationships between MO and alternative strategic orientations.

We find a moderate positive relationship between MO and innovation orientation ($r = 0.397$), and a strong positive relationship between MO and learning orientation ($r = 0.635$), entrepreneurial orientation ($r = 0.633$), and employee orientation ($r = 0.522$). These results support hypotheses *H1-H4*.

To provide additional insights and improve our understanding of the results we conduct an in-depth analysis of the data. All the 49 effects of the relationship between MO and innovation orientation are positive. However, nine are suspiciously close to zero, suggesting a non-significant effect ($r < 0.188$). When differentiating between the

Hypotheses	The relationships between market orientation and alternative strategic orientations	No. of effects	Total sample size	Mean effect size corrected for measurement error	−95% LCL	+95% UCL	Empirical conclusions
H1	Market orientation-innovation orientation	49	10,496	0.397	0.343	0.452	Supported
H2	Market orientation-learning orientation	9	3,174	0.635	0.591	0.678	Supported
H3	Market orientation-entrepreneurial orientation	14	3,996	0.633	0.541	0.725	Supported
H4	Market orientation-employee orientation	37	10,408	0.522	0.465	0.580	Supported

Table I. Meta-analytic estimates of the relationships between market orientation and alternative strategic orientations components of innovation orientation – innovativeness ($n = 24$) and new product performance ($n = 25$), we find that the relationship of MO with innovativeness ($r = 0.445$) is higher than with new product performance ($r = 0.333$). Still, the positive relationship of MO with both components is considered only moderate (Kluger *et al.*, 2002). All the nine effects of the relationship between MO and learning orientation are positive and strong. Furthermore, there is little variance among the effects ($\sigma = 0.005$). All the 14 effects of the relationship between MO and entrepreneurial orientation are positive. Still, two relatively low effects (0.231, 0.260) substantially increase the variance among the effects ($\sigma = 0.026$). Of the 37 effects of the relationship between MO and employee orientation 36 are positive. Also, we find that among the strongest effects, the top three are reported in studies that sampled small firms ($r > 0.846$) while among the weakest effects, the top three are reported in studies that sampled large firms ($r < 0.200$).

Discussion and implications

Previous research on MO, including previous meta-analyses in the field, has concentrated on studying the direct effect of MO on business performance. Today, the positive effect of MO on performance is no longer in doubt. It is also clear today that there is no single strategic orientation that leads to superior performance in all situations, and that other orientations beyond MO are also related to higher levels of organizational performance (Noble *et al.*, 2002). Furthermore, few recent studies show that firms that combine MO with other strategic orientations are likely to perform even better than firms adopting only MO (e.g. Atuahene-Gima and Ko, 2001; Baker and Sinkula, 1999a; Matsuno *et al.*, 2002). Based on the above we believe that research on MO should shift its focus, moving to the study of the various combinations of strategic orientations that firms can pursue in different situations, studying how the more successful market-oriented firms balance between MO and other strategic orientations. Moving towards this direction, the present meta-analysis offers an in-depth investigation of the relationships between MO and other central strategic orientations, identifying the effect of MO on different orientations and the orientations that are more likely to be combined with MO.

Our findings suggest that MO is positively related to a number of strategic orientations. Clearly, market-oriented firms are more likely to combine MO with learning or entrepreneurial orientations. The finding that MO and a learning orientation are strongly correlated supports the view that learning orientation is interrelated with MO, that it is the engine underlying MO (Baker and Sinkula, 1999a). Indeed, learning-oriented firms and market-oriented ones share similar values and behaviors. These involve the development of knowledge in the organization through frequent generation of market information as well as the constant examination of the quality of this information and of its dominant logic (Baker and Sinkula, 1999a; Liu *et al.*, 2002; Slater and Narver, 1995).

The finding that MO has a positive and very strong correlation with an entrepreneurial orientation is somewhat surprising. Indeed, we expected a positive relationship between the two orientations. The reason is that both market-oriented and entrepreneurial firms strive to satisfy expressed and latent customer needs, and pursue market expansions as they are identified. Also, marketing knowledge and information is often crucial for the entrepreneurial process and firms that score high on MO often tend to be more entrepreneurial-oriented (Atuahene-Gima and Ko, 2001; Bhuian *et al.*, 2005; Luo *et al.*, 2005b). Still, previous research has shown that really high levels of entrepreneurial orientation often have a reduced effect on the MO-business performance relationship. Specifically, highly entrepreneurial-oriented firms are often technology-driven and are less likely to use market information constructively. The information they gather is often used only to support predetermined positions led by an entrepreneurial agenda (Atuahene-Gima and Ko, 2001; Bhuian *et al.*, 2005). Our finding most likely suggests that the combined use of MO and an entrepreneurial orientation has a very strong synergetic effect and that the two orientations actually complement each other, often leading firms to balance between high levels of both MO and entrepreneurial orientation (Becherer and Maurer, 1997). Further, an examination of the operationalizations of the two constructs reveals a number of similarities, supporting the view that the two constructs are closely linked. Specifically, both constructs involve firms being "proactive" "aggressive" and "responsive" towards their customers and competitors (Atuahene-Gima and Ko, 2001; Becherer and Maurer, 1997; Liu *et al.*, 2002).

While we find that MO is strongly linked to both learning and entrepreneurial orientations, an in-depth analysis of the data confirms that the association of MO with a learning orientation is stronger. The reason is the substantially lower variance among the effects of the relationship between MO and a learning orientation. In all the cases in our sample market-oriented firms also possess a strong learning orientation. This is not the case with MO and entrepreneurial orientation where in some situations a market-driven behavior is accompanied by low entrepreneurial orientation. A typical example for such mismatch can be found among government agencies where a customer-oriented behavior is very common but entrepreneurship is not encouraged and rewarded (Cervera *et al.*, 2001).

The third strongest relationship involves MO and employee orientation. The reason is that in both market-oriented and employee-oriented firms, employees share information, participate in decision making, and cooperate and work together towards a common goal (Fritz, 1996; Han *et al.*, 1998; Zhou *et al.*, 2004). This is likely to create a bonding between employees and the organization, promoting a feeling of belonging to one big organizational family (Jaworski and Kohli, 1993). Overall, this is likely to increase job satisfaction, motivation, organizational commitment, and team spirit, while minimizing role conflict (Ruekert, 1992; Siguaw and Honeycutt, 1995). The finding that among the strongest effects between MO and employee orientation, the top three are reported in studies that sampled small firms while among the weakest effects, the top three are reported in studies that sampled large firms has an interesting implication. This finding suggests that the smaller the firm the more employees are likely to share the feelings of belonging and are more likely to share information and cooperate (Pelham and Wilson, 1996). This, in turn, is likely to increase employee consequences in small firms more than in large ones (Piercy *et al.*, 2002; Pelham, 1999).

The fourth strongest relationship involves MO and innovation orientation. The reason for the positive effect is most likely because MO involves doing something new or different in response to market conditions, often changing the status quo (Han *et al.*, 1998; Jaworski and Kohli, 1993). Indeed, our in-depth analysis suggests that while MO is positively associated with the first component of innovation orientation – new product performance, it has a stronger association with the second component –

innovativeness: a firm's openness to new ideas and concepts, and the degree to which its new products are new-to-the-world (Deshpandé *et al.*, 1993; Hurley and Hult, 1998). Also, recent research suggests that market-oriented firms often attempt to satisfy latent needs of customers, not only expressed ones, and that they can employ their innovative and technological capabilities to develop a new solution to meet these needs (Gatignon and Xuereb, 1997; Narver *et al.*, 2004). Noteworthy is the fact that this relationship, while positive, is much weaker, relative to the relationships between MO and all other strategic orientations. In fact, it is considered only moderate (Kluger *et al.*, 2002). The reason may be related to the MO measures used by most previous researchers. The majority of measures emphasize firms' efforts towards the identification of current-expressed customer needs, not future-latent ones. This market-oriented behavior, in turn, is likely to limit firms' innovativeness (Connor, 1999; Narver *et al.*, 2004). MO researchers have only recently differentiated between two types of MO: responsive and proactive. Responsive MO is aimed at the identification and satisfaction of current-expressed customer needs and should have only a moderate association with innovation orientation. This measure has been often used in previous MO research. Proactive MO deals with future-latent customer needs, which should have a much stronger association with innovation. However, this measure has been rarely used in previous research (Narver *et al.*, 2004).

It is important to view the above findings in the context of the distinction between organizational culture and behaviors. The majority of the MO literature treats MO as a company culture – a philosophy and a system of beliefs that guide the practice of the company. A successful market-oriented behavior should be supported and guided by a market-oriented culture (Deshpandé *et al.*, 1993; Slater and Narver, 1995). Similarly, to be successfully implemented, all alternative orientations should be guided by the necessary underlying system of beliefs. Thus, a central implication for firms is that to be able to successfully adopt multiple strategic orientations, firms must incorporate multiple systems of belief, developing a more complex corporate culture.

Limitations and future research directions

We believe that research on MO should shift its focus, moving from studying the direct effect of MO on business performance, to the study of the various combinations of strategic orientations that firms can pursue in different situations. MO is not the only viable strategic orientation and recent research shows that the firms that combine MO with other strategic orientations are likely to perform even better than firms adopting only MO (e.g. Atuahene-Gima and Ko, 2001; Baker and Sinkula, 1999a; Matsuno *et al.*, 2002). The limited number of studies available for the meta-analysis made it possible to study here only a limited number of relationships and contexts. Future research should therefore further study how the more successful market-oriented firms balance between MO and other strategic orientations in different conditions. For example, it should be relevant to examine in what type of environmental and organizational conditions firms combine MO with other strategic orientations such as learning or employee orientations, studying when each combination is more effective. Further, additional central strategic orientations should be examined *vis-à-vis* MO. Specifically, it is relevant to study the relationships between MO and a production orientation, sales orientation, and Miles and Snow's (1978) strategic orientations (e.g. prospectors, defenders). These relationships were rarely studied in marketing (Matsuno and Mentzer, 2000; Noble *et al.*, 2002).

To resolve the debate as to the nature of the MO-innovation orientation relationship, future research should study the relationship between innovation orientation and the two types of MO – responsive and proactive (Narver *et al.*, 2004). This would make it possible to examine whether a market-oriented behavior which is aimed at the identification and satisfaction of latent needs of customers has a stronger association with innovation orientation relative to a market-oriented behavior aimed at expressed customer needs.

It might be relevant to further examine the relationship between MO and the two alternative strategic orientations with which it is most strongly correlated: learning and entrepreneurial orientations, and specifically whether these orientations drive MO, are driven by it, or adopted simultaneously. Also, while these orientations are highly correlated with MO, it might be interesting to study the firms that are reluctant to adopt both MO and these orientations and their performance in certain conditions. Further, as to entrepreneurial orientation, our finding defers from previous research that shows that really high levels of entrepreneurial orientation often have a reduced effect on the MO-business performance relationship (e.g. Bhuian *et al.*, 2005). Future research should therefore further examine the conditions under which the synergetic effect of MO and entrepreneurial orientation is especially effective.

Future meta-analytic efforts on the relationships between MO and alternative strategic orientations may include the examination of contextual and methodological moderators. For example, it might be relevant to study the nature of the different relationships among studies conducted in different countries, environments with varying volatility levels, firms with varying sizes, the use of different measures (e.g. MO, innovation orientation), and the use of different respondents (e.g. marketing vs non-marketing).

Note

1. Studies employed in the meta-analysis are: Agarwal *et al.* (2003); Appiah-Adu (1997); Atuahene-Gima (1995, 1996); Atuahene-Gimaand Ko (2001); Baker and Sinkula (1999a, b); Barrett and Weinstein (1998); Becherer and Maurer (1997); Bhuian and Abdul-Gader (1997); Bhuian *et al.* (2005), Cadogan *et al.* (2002); Calantone *et al.* (2003); Caruana *et al.* (1999); Cervera *et al.* (2001); Farrell (2000); Frambach *et al.* (2003); Gatignon and Xuereb (1997); Harris and Ogbonna (2001); Hartline *et al.* (2000); Hult and Ketchen (2001); Hult *et al.* (2003, 2004); Im and Workman (2004); Jones *et al.* (2003); Kumar *et al.* (1998); Kyriakopoulos and Moorman (2004); Lado and Maydeu-Olivares (2001); Lai (2004); Langerak *et al.* (2000, 2004a, b); Langerak (2001, 2003); Liu *et al.* (2002, 2003, 2005a, b); Lukas and Ferrell (2000); Maignan *et al.* (1999); Maignan and Ferrell (2001); Menguc (1996); Martin *et al.* (1998); Matsuno and Mentzer (2000); Matsuno *et al.* (2000, 2002); Matsuno (2002); Mavondo (1999a, b); Maydeu-Olivares and Lado (2003); Moorman and Rust (1999); Morgan and Turnell (2003); Narver *et al.* (2004); Pelham and Wilson (1996); Pelham (1997a, b, 1999); Piercey *et al.* (2002); Raju *et al.* (1995); Raju and Lonial (2002); Rameseshan *et al.* (2002); Ruekert (1992); Sandvik and Sandvik (2003); Selnes *et al.* (1996); Shoham and Rose (2001); Siguaw *et al.* (1994); Siguaw and Honeycutt (1995); Slater and Narver (1994); Subramanian and Gopalakrishna (2001); Vazquez *et al.* (2001); Vorhies *et al.* (1999); Vorhies and Harker (2000); Wei and Morgan (2004); Wood *et al.* (2000); Zhou *et al.* (2004, 2005).

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